5. Intelligent Viewer Program

Additional driving performance data can be accessed using the included bulls-i® Intelligent Viewer Software and Google Maps® integration for Route location with a internet connected PC.

The bulls-i® Intelligent Viewer Software can be downloaded from www.bulls-i.com. Visit the website for instructions on using the viewer.

6. Specifications

Feature		ETK-B2200
Camera	Channel	1 channel
	Sensor	CMOS (2.0M)
	Angle of View	130 degree
Recording	Resolution	1280 x 720 (HD)
	Frame	30 fps
	Codec	H.264
	Recording mode	Continuous, Event, Parking Watch(Motion Detection)
	Period	Continuous : 1 min, Event : -15 sec ~ +15 sec
Storage	bulls-i® microSD card	Up to 32GB
Features	Sensor	3-axis Acceleration sensor
	GPS	Supported (External GPS included)
	Microphone	Built-in
	Speaker	Built-in
	Voice Guidance	Supported
	Security LED	Supported
Power	Main Power	DC 12V ~ 24V
	Sub Power	Super Capacitor
Temperature	Operation temperature	-20°C ~ 70°C
	Storage temperature	-40°C ~ 85°C

7. Notice: Product Serial Number (Sequence Number)

The product serial number is a very important means for identifying product model during after-sales services and other customer services. Do not lose or forget your serial number. For the disadvantage that can be when you lose or forget the number, the producer bears no liability for the damages.

Product	Vehicle Drive Recorder	Date of Purchase		Serial Number	
Model	ETK-B2200	Place of Purchase		Price	

RoHS compliant MADE IN KOREA

bulls-i
Vehicle Drive Recorder

phoenix
HD RESOLUTION BLACKBOX ETK-B2200

Quick Guide

Main Features

- HD Resolution — HD images
- 270° — 270° Camera Rotation
- Voice Guidance supported
- 130° — Wide Angle of View
- High Sensitivity GPS receiver
- 3-Axis Acceleration Sensor
- Security LED
- 3-Phase Power
- Parking Mode
- Battery Drain Prevention
- microSD memory card format
- Voice Recording ON/OFF

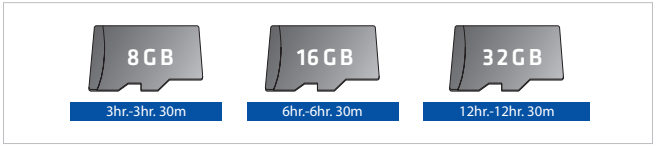
DC 12V~24V | Event Recording | Continuous Recording, Motion Recording | Built-in microSD Card Formatting | Overwriting

※ The specification in the manual may differ from the actual product and are subject to change without advance notification.

A complete user manual is available for download at the manufacturer's website.
www.bulls-i.com>Download>Manual>ETK-B2200 Instructions

1. Safety Warnings and Cautions

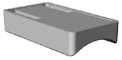
- **Do not operate the product during driving.**
  If you operate the product while driving, you can cause any accident. The operation shall be done after stopping the vehicle.
- **The user may not install, disassemble or modify the product without complying with the instructions.**
  If the user install, disassemble or modify the product without following the instructions, it can be the cause of product failure and the producer is not responsible for any loss or damage.
- **Notice about data loss (microSD card care)**
  ※Pay attention to the possible data damage of the microSD memory card.
  The microSD memory card is a very sensitive product that can malfunction due to any bad exterior environment or any shock caused during the use. Pay heed to the damages that can be incurred by shocks. For the microSD memory cards damaged due to the inattention of the user or exterior environment, the producer of the black boxes for cars shall not be liable for any kind of damage.
- **Use of genuine microSD memory card**
  We recommend that you purchase bulls-i's genuine microSD memory card on the officially qualified website.
  Customer Center of www.bulls-i.com website>Notice>Search for any microSD memory card compatible with the product
- **How to care for microSD memory card (microSD card format per month recommended)**
  Please check the data more than one time every week to know whether the product operates normally, and for the prevention of data error, format the microSD card at least once per month. The microSD memory cards for car black boxes are expendables, and thus, if you have used it for a long time, you had better replace it with a new one.
- **Recording capacity of each microSD card**

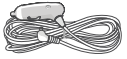


※This product is provided as a car safety assistance product. Therefore, in case of accident, all responsibilities lie with the user. Use it according to its usage.

2. Product and Accessories

bulls-i Vehicle Drive Recorder


Bracket


Power Cable (Plug-in / Wire-in)

microSD memory card

microSD memory card reader

3M Double-sided tape (For attaching Bracket)

Quick Guide

Cable Holder

GPS

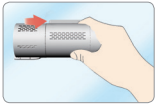
3. Product Installation Procedure

Clean the windshield.

Remove the protective film from the double-sided tape.

Attach the bracket to the windshield (position to not obstruct the driver's view.)

Insert the microSD card into the card slot of the recorder.

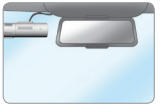

Place the recorder into the bracket.

Adjust the angle of the recorder | Use the adjustment angle to make sure that the lens is directed centrally and in the direction of the desired view to be recorded.

270° Rotation | When the recording of the inside of vehicle is required, you can start the recording after rotating the body.

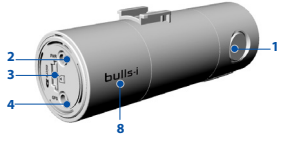
Connect the power cable to the "PWR" input on the recorder.

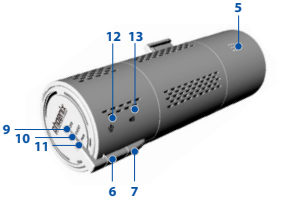
Connect the DC end of the power cable into the car power outlet.


Cable arrangement | Arrange the cables cleanly using a cable holder.

- An alarm message appears when the microSD card is not normally recognized. (Voice message, LED)
- For the connection of power cables, we recommend you to refer to a qualified service center.

4. Using Product > Name and Function of Each Part of the Body





	Name	Function
1	Camera Lens	Receives optical data
2	Power Jack	Power input
3	Memory Card Slot	The microSD card is inserted into and removed from the slot.
4	GPS IN	Input for the GPS cable.
5	Speaker (Buzzer)	Operational Status Voice Guidance Alerts
6	Microphone Button	(Short Key) Voice Recording On/Off (Long Key) SD card format
7	Speaker Button	(Short Key) Speaker On/Off (Long Key) System Initialization
8	Security LED	Under the parking mode, it blinks, and during the parking event recording, is turned on.
9	GPS LED	The LED blinks while the GPS cable is connected, and is turned on when GPS signal reception begins. (Green Color)
10	Event LED	It's turned on during event (shock) recording and parking recording. (Red Color)
11	Power LED	While the power is connected, it blinks. After the connection of power, it is turned on. (Blue Color)
12	MIC LED	The LED is turned on when the voice recording is in "ON" status.
13	Speaker LED	The LED is turned on when the speaker is in "ON" status.